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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,269	08/16/2001	Junko Ushiyama	1021.40495X00	1058

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EXAMINER

HUBER, PAUL W

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 04/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/930,269

Applicant(s)

USHIYAMA *de*

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 6 and 9 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8 and 10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 7, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (USP-5,309,419) considered with Kubota et al (USP-6,031,803).

Koike discloses an information recording method and apparatus for recording information onto a disc while varying a linear velocity so as to allow the information to correspond to an edge of a recording mark formed in radiating light pulses from a light source to the disc. A test writing is performed at an inner periphery zone of the disc at a plurality of linear velocities, thus obtaining recording parameters suitable for the linear velocities. "Information is recorded on the try-to-write region 4 on the inside of the innermost periphery of the rewritable region 2 of the optical disk 1 while rotating it at linear velocities equal to the recording velocities of at least two positions (radii R1, R2) in the radius direction A within the rewritable region 2, and the optimum recording light amounts are measured" (see abstract). The light source is then controlled in accordance with a recording parameter corresponding to a linear velocity for an area on which the information is to be recorded, the recording parameter being obtained based on a correlation between the linear velocities and the recording parameters suitable for the linear velocities. "The optimum

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recording light amounts for all velocities in the rewritable region 2 are determined by an interpolation or extrapolation processing 26 of the measured optimum recording light amounts at the two velocities" (see abstract).

However, Koike fails to specifically teach that the test writing is performed at an outer periphery zone of the disc as claimed; rather teaching only that the test writing is performed at the inner periphery zone of the disc. Kubota et al discloses an information recording method and apparatus which performs test writing at an outer zone of the disc, in the same field of endeavor, for the purpose of determining at least a final recording power for recording in a user region of the optical disk (see abstract). Kubota et al teaches that at the outer track, where linear velocity is higher, "recording sensitivity ... tends to be made better" (col. 22, lines 11-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Koike such that the test writing is performed at an outer periphery zone of the disc as claimed and as taught by Kubota et al, rather than the inner periphery of the disc as disclosed. A practitioner in the art would have been motivated to do this for the purpose of writing the test information where the linear velocity is higher and thus, the recording sensitivity tends to be made better, thereby resulting in test information which can be more accurately recorded with a relatively lower recording power.

Koike as modified above discloses the invention as claimed, but fails to specifically teach that the disc is a phase-change type disc. However, Koike teaches that the "invention relates to an apparatus and method for recording optical disks, both those suitable for recording and those suitable upon reproduction, for example, reversible-type optical disks capable of being repetitively recorded and reproduced, or write-once type disks" (col. 1, lines 11-16). It is manifestly well known in the art and further disclosed by Kubota et al that one can record information on a phase-change type disc, in the same field of endeavor, for the purpose of repetitively recording and reproducing information on a disc which is well established in the art and thus has reasonable manufacturing costs. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Koike such that the optical disc is a phase-change type disc as well known in the art and as further taught by Kubota et al. A practitioner in the art would have been motivated to do this for the purpose of repetitively recording and reproducing information on a disc which is well established in the art and thus has reasonable manufacturing costs.

Regarding claims 7 and 10, the recording parameter includes recording power and a pulse width. See figure 4. Furthermore, in a phase change type disk where overwriting is performed, the recording parameter includes recording power which is also the erasing power during overwriting operation.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO-892 each disclose a recording apparatus for writing test information onto a zone of the recording medium.

Claims 5, 6, and 9 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record considered as a whole fails to teach or suggest an information recording method or apparatus for recording information onto a phase-change disc while varying a linear velocity so as to allow the information to correspond to an edge of a recording mark formed in radiating light pulses from a light source to the phase-change disc, comprising: **performing test writing for inner and outer periphery zones of the disc at substantially equal linear velocities to each other**, thus obtaining a recording parameter suitable for the inner periphery of the disc and a recording parameter suitable for the outer periphery thereof; obtaining a recording parameter correction coefficient at a position with respect to a disc radius based on the recording parameter suitable for the inner periphery of the disc and the recording parameter suitable for the outer periphery thereof; and correcting a recording parameter corresponding to a linear velocity at an area onto which the information is to be recorded, thus controlling the light source in accordance with the corrected recording parameter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 703-308-1549.



Paul Huber
Primary Examiner
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